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# Massachusetts Health Care Cost Trends

## Premiums and Expenditures

May 2012



DIVISION OF  
Health Care  
Finance and Policy

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## Executive Summary

Multiple studies have shown that health insurance premium costs in Massachusetts and the Northeast region are among the highest in the nation, placing a substantial burden on consumers and employers seeking good value for their spending on medical services. In 2010, Massachusetts had the ninth highest premium level for family coverage among all 50 states and the District of Columbia.<sup>1</sup> In 2011, the Northeast region had the highest premiums of any region across all plan types.<sup>2</sup> Understanding the factors that influence premiums in Massachusetts and how those premiums are changing over time will help policymakers address rising costs with effective solutions.

There are two main components of this report: (1) an analysis of premium trends (annual growth rates) in Massachusetts, and (2) an analysis of total medical expenses (TME).<sup>3</sup>

The premium trends section of the report discusses trends in premiums paid by employers and consumers for health insurance, and the medical expenses and retention charges included in premiums.<sup>4</sup> The analysis shows that the growth of premiums has slowed in recent years, although small groups continued to experience the highest adjusted<sup>5</sup> premium rates and increases, and overall premium increases continue to outpace inflation.<sup>6</sup> The slowing growth of premiums in Massachusetts is consistent with a national trend, suggesting that macroeconomic factors beyond the Commonwealth may be partially responsible. In addition, there is evidence that group purchasers are selecting insurance packages with fewer benefits or higher cost sharing requirements, a phenomenon known as “benefit buy-down.” Buy-down can result in lower observed premiums, but may reduce access to care or increase out-of-pocket expenditures.

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1 See The Commonwealth Fund, *State Trends in Premiums and Deductibles, 2003–2010: The Need for Action to Address Rising Costs*, November 2011, available at: [http://www.commonwealthfund.org/~media/Files/Publications/Issue%20Brief/2011/Nov/State%20Trends/1561\\_Schoen\\_state\\_trends\\_premiums\\_deductibles\\_2003\\_2010.pdf](http://www.commonwealthfund.org/~media/Files/Publications/Issue%20Brief/2011/Nov/State%20Trends/1561_Schoen_state_trends_premiums_deductibles_2003_2010.pdf), accessed 2/8/2012.

2 The Northeast region had annual premiums of \$5,785 for single coverage and \$16,013 for family coverage. The respective nationwide values were \$5,429 and \$15,073. These amounts were found to be statistically significant by the authors. See Kaiser/HRET Survey of Employer-Sponsored Health Benefits, 2011, available at: <http://ehbs.kff.org/pdf/2011/8225.pdf>, accessed 2/8/2012.

3 Pursuant to the provisions of M.G.L. c. 118G, § 6 1/2, the Massachusetts Division of Health Care Finance and Policy (DHCFP) is required to monitor health care cost trends in the Commonwealth and the factors that contribute to cost growth.

4 Please reference Appendix A for detailed enrollee demographics in the Massachusetts commercial market.

5 An explanation of premium adjustment factors can be found in the last paragraph on page 3.

6 Average annual percent change in unadjusted and adjusted premiums in Table 1 as compared to 2.9% Northeast regional inflation for 2011 (from the Bureau of Labor Statistics, [www.bls.gov](http://www.bls.gov), accessed on March 16, 2012).

The TME sections of the report discuss statewide TME, and differences in TME by payer and parent physician group.<sup>7</sup> Roughly 90 percent of all premium dollars are used to pay clinicians for claims and non-claim services provided; measuring TME captures those payments for many Massachusetts residents. TME is reported for the commercial market, including fully-insured and self-insured enrollees. The analysis compares baseline results from 2009 to interim results from 2010, and shows that the three largest payers experienced the largest growth and the highest unadjusted<sup>8</sup> TME in 2010. Additionally, there was wide variation in health status-adjusted physician group TME by payer. Although the data are limited, they are consistent with a correlation between provider price variation and overall cost growth.

The cost of insurance-covered medical care (excluding cost sharing like coinsurance and deductibles) can be influenced by a number of factors, including but not limited to the age of the enrollees, the health status of the population, the level of payments to providers, the breadth of covered services, and the portion of covered services that are the liability of the payer as opposed to the member (i.e., cost sharing).

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7 Physician group reporting occurred at both the parent level and the local level. The parent physician group refers to the organizing entity which contracted as a single entity for its constituent local practice groups. For this study, only data reported at the parent level was analyzed.

8 An explanation of adjustment factors and how they were applied to TME can be found in Appendix B – Data and Methodology.

# 1. Results from Premium Analysis

This section describes the growth of premiums from 2008 to 2010, based on premium, claims, membership, and non-medical expense data.<sup>9</sup> Premiums and growth rates are presented by market group sector, by various adjustment factors, and by the relative actuarial value of the plans. The analysis also presents trends in claims expenditures, expressed through medical loss ratios<sup>10</sup> and the components of retention.<sup>11</sup>

This section also provides a preliminary analysis on quoted 2011 premium rate increases for small and mid-size groups.<sup>12</sup> The premium findings are limited to Massachusetts residents and out-of-state residents that are covered under Massachusetts contracts, with a focus mainly on the fully-insured market; however, some self-insured enrollment data are reported. When collectively referring to the small group, mid-size group, and large group sectors, they are referred to as “group market” sectors. When individuals and small groups are combined, they are collectively referred to as the “merged market.”

Throughout the premiums section of this report, the insurance market sectors are defined as follows:

- Individuals are those who purchase coverage directly;
- Small groups are those with 1 to 50 eligible employees;<sup>13</sup>
- Mid-size groups are those with 499 or fewer enrolled employees, not meeting the definition of a small group; and
- Large groups are those with 500 or more enrolled employees.

Findings are presented for premiums that are unadjusted and adjusted. Unadjusted premiums are the actual premiums earned by the participating carriers during the stated timeframe. Unadjusted premiums and their growth are influenced by the covered benefits and demographics of the population being studied. For example, an employer may choose to increase member cost sharing when renewing a group contract; this is a common practice used to mitigate premium rate increases. As individuals and groups increase member cost sharing over time, the unadjusted premium trend will decrease due to the change in the value of the overall benefit plan. In addition to increasing cost sharing, the premium rate increase could also be mitigated by purchasing a plan with fewer covered services or otherwise reducing the value of the plan. As noted previously, this practice is referred to as “benefit buy down.” This analysis uses several factors to adjust premiums according to a common set of demographics and benefit levels for consistency in comparing across market sectors and time periods.<sup>14</sup>

9 These data were submitted by six of the largest Massachusetts commercial health plans and reviewed for reasonableness, but they were not audited. When reported data was not consistent, some carriers were eliminated from the analysis. To the extent the remaining data are incomplete or inaccurate, the findings are compromised. More information can be found in Appendix B – Data and Methodology.

10 The medical loss ratio in this study is defined as claims divided by premium. The loss ratios calculated in accordance with the ACA minimum medical loss requirements defined in 45 CFR Part 158 include certain adjustments that have not been included in calculating the loss ratios in this report.

11 Retention is calculated as premium less claims.

12 For 2008 through 2010, the data requested was actual membership, premium, and claims incurred during that time. All data was requested to be provided by November 18, 2011. The 2011 data requested was quoted premium rate increases for individuals and groups renewing in 2011, even if those groups chose to alter or terminate coverage upon renewal. It does not include new individuals or groups that enrolled in 2011, or changes to the demographics or covered benefits of individuals and groups that occurred after the renewal rate quote was developed. 2011 Data was not requested for individuals and large groups.

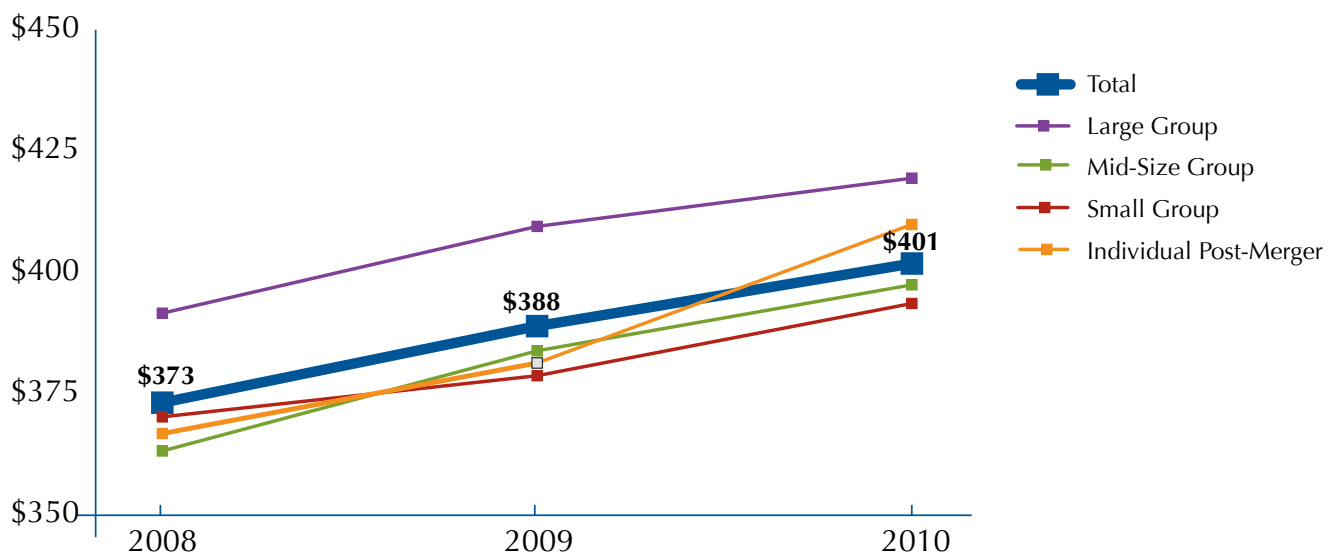
13 “Eligible employees” are defined by Massachusetts Division of Insurance regulation 211 CMR 66.04.

14 For more information on the methodology for adjusting the premium, see Appendix B – Data and Methodology.

## Trends in Premium Growth

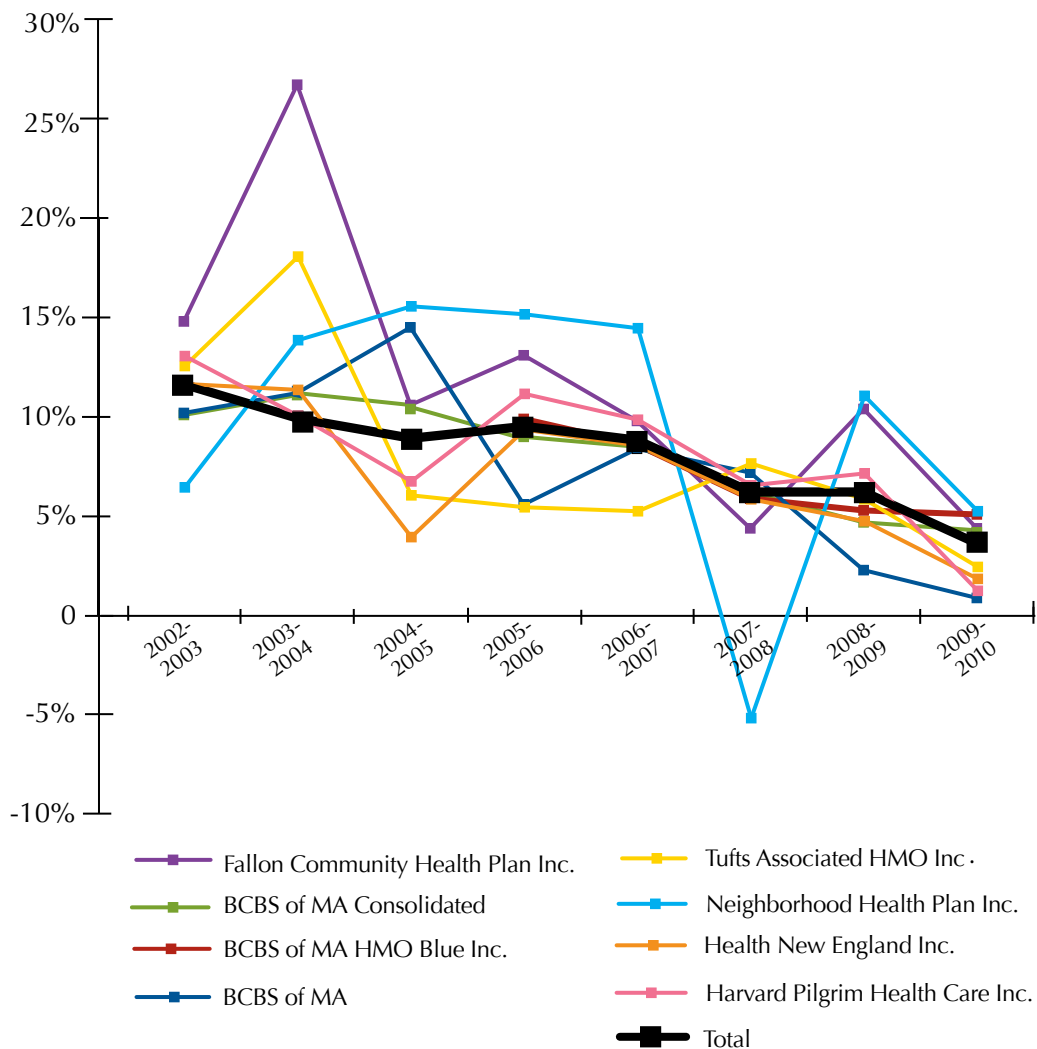
From 2008 to 2010, premiums increased for all sectors. Overall, premiums grew 7.5 percent in the commercial market, and large groups had the highest unadjusted premium dollar values but the lowest growth rates when adjusted for all factors (see Table 1). Over the same two year period, the total unadjusted premium growth rates were 6.2 percent for small groups, 9.2 percent for mid-size groups, and 7.0 percent for large groups.

**Figure 1. Unadjusted Premiums per Member per Month (PMPM) by Insurance Market Sector, 2008-2010**



Source: Oliver Wyman analysis of data from Massachusetts carriers for resident and non-resident insured lives.

Analysis of historical data on claims expenditures, which are the primary driver of premiums, is helpful as a proxy for long-term trends in premium growth rates (only three years of comparable premium data are available). An analysis of claims expenditures for major payers in Massachusetts since 2002 (as reported on carrier financial statements) supports the contention that rates of premium growth have slowed over time. Total claims expenditure growth rates in the commercial market have fallen from 11.7 percent to 3.7 percent over eight years.

**Figure 2. Change in Claims Expenditures for Major Medical Products, 2002-2010**

Source: Oliver Wyman analysis Massachusetts carriers annual statutory financial statements.

Note: Trend rates were calculated from un-rounded pmpm amounts (not shown).

Large groups paid *higher* unadjusted premiums PMPM than individuals, small groups, or mid-size groups. However, after making the adjustments described above, large groups paid lower premium PMPM than small or mid-size groups in 2010. Specifically, decreases in the value of benefits purchased resulted in adjusted growth rates that were significantly higher than the unadjusted rates. The magnitude of the benefit buy-down led to benefit-adjusted average annual growth rates ranging from 5.1 percent for large groups to 10.3 percent for small groups.

**Table 1. Unadjusted and Adjusted Premiums PMPM, and Percent Change in Premiums for Private Comprehensive Health Insurance Products, 2008-2010**

Unadjusted Premium PMPM					
	Premium PMPM			Percent Change	
	2008	2009	2010	2008-2009	2009-2010
Small Group	\$370	\$378	\$393	2.2%	3.8%
Mid-Size Group	\$363	\$383	\$396	5.6%	3.5%
Large Group	\$391	\$408	\$418	4.5%	2.4%
Variation	8%	8%	6%		
Adjusted for: Benefits					
	Premium PMPM			Percent Change	
	2008	2009	2010	2008-2009	2009-2010
Small Group	\$488	\$535	\$590	9.5%	10.3%
Mid-Size Group	\$446	\$488	\$519	9.4%	6.4%
Large Group	\$463	\$493	\$518	6.4%	5.1%
Variation	9%	10%	14%		
Adjusted for: All Factors					
	Premium PMPM			Percent Change	
	2008	2009	2010	2008-2009	2009-2010
Small Group	\$539	\$584	\$647	8.3%	10.8%
Mid-Size Group	\$483	\$524	\$550	8.5%	5.1%
Large Group	\$481	\$509	\$534	5.9%	4.8%
Variation	12%	15%	21%		

Source: Oliver Wyman analysis of data from Massachusetts carriers for resident and non-resident insured lives.

Notes: Trend rates were calculated from un-rounded pmpm amounts (not shown).

Variation in premiums PMPM, measured as the percent difference between the premium PMPM for the market sector with the highest premium and the premium PMPM for the sector with the lowest premium, is greater when adjusted for benefits. Overall, small groups tend to purchase less rich benefits than mid-size and large groups. In addition, carriers charge higher premiums to the smallest groups within the small group market sector.<sup>15</sup> When premiums are adjusted for all factors,<sup>16</sup> there is greater variation by group sector, with small groups paying premiums 21 percent higher than large group premiums.

<sup>15</sup> Group size is an allowable rating factor in the merged market, whereby individuals and groups of smaller size are charged higher premiums than groups of larger size (within small group), all else being equal. The explicit group size adjustment only applies to the small group market; however, carriers may choose to adjust premiums based on group size in the mid-size and large group sectors. This may be done to reflect generally lower administrative costs PMPM for larger group sizes.

<sup>16</sup> "All factors" include benefits, age and gender, geographic area, and group size. An alternate version of Table 1 featuring each individual factor in addition to the ones shown above can be found in Appendix A.



## Variation in Premium Growth

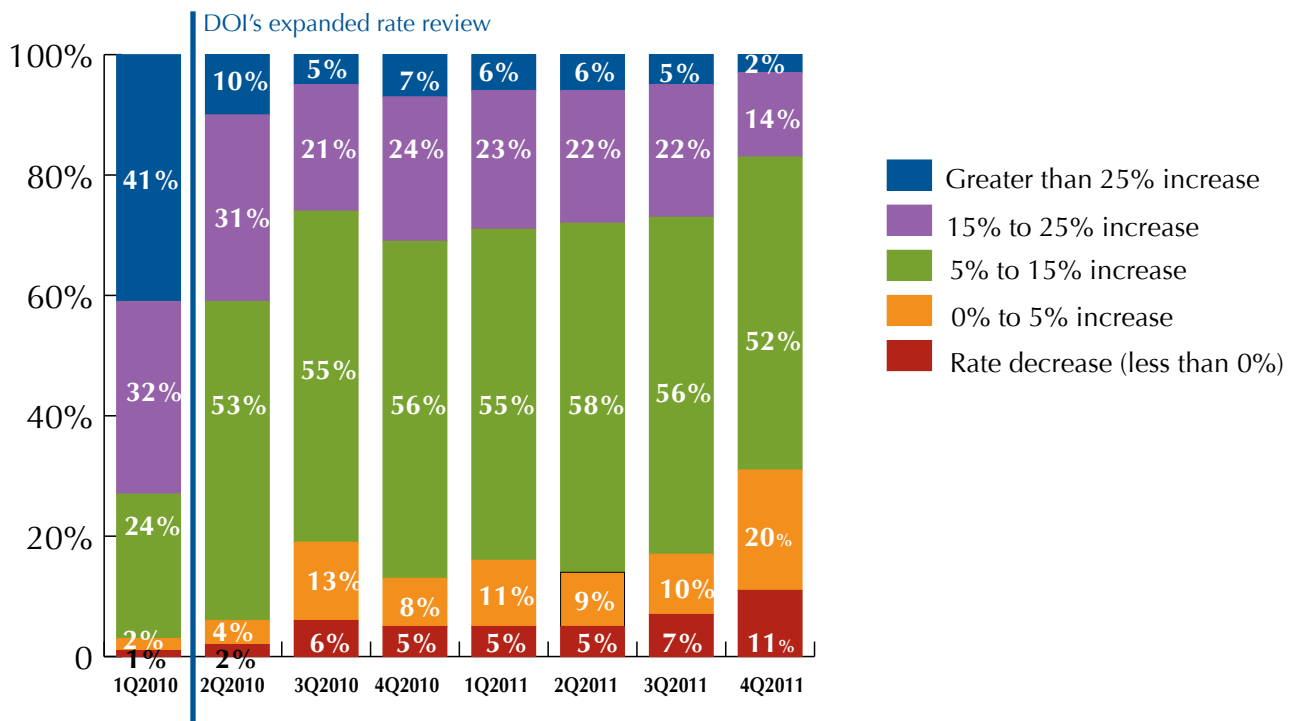
Annual premium growth volatility can be substantial in the small group market, where each covered employee represents a larger portion of the total group than in mid-size or large employer groups. In 2011, Chapter 288 of the Acts of 2010 implemented steps to mitigate the volatility in small groups' premium rate increases.

### Chapter 288 – Insurance Rate Relief for Small Businesses

For rates effective July 2011 and later, the Massachusetts Division of Insurance revised its rating regulations to implement changes in rating rules pursuant to Chapter 288 of the Acts of 2010. Expanded rate review authority was granted to the Division of Insurance beginning with rates effective second quarter 2010.<sup>17</sup> Age adjustment factors in the merged market are required to apply on a year-to-year basis to smooth out the impact of aging. Previously, it was common in the commercial market to apply age factors on a five-year basis. In addition, a 15% maximum was implemented on the annual rate of increase in the merged market that can be attributable to the combined impact of age factor, industry factor, participation-rate factor, wellness factor, and tobacco use factor.

Prior to the law taking effect, roughly 40 percent of members in the small group market renewing in the first quarter of 2010 received quoted rate increases of 25 percent or more. After the law took effect, small group members started to experience less volatile premium rate increases. Figure 3 displays a clear increase in the proportion of small group members receiving lower premium increases over time. By fourth quarter 2011, only 2 percent of small group members received a quoted rate increase of 25 percent or more.

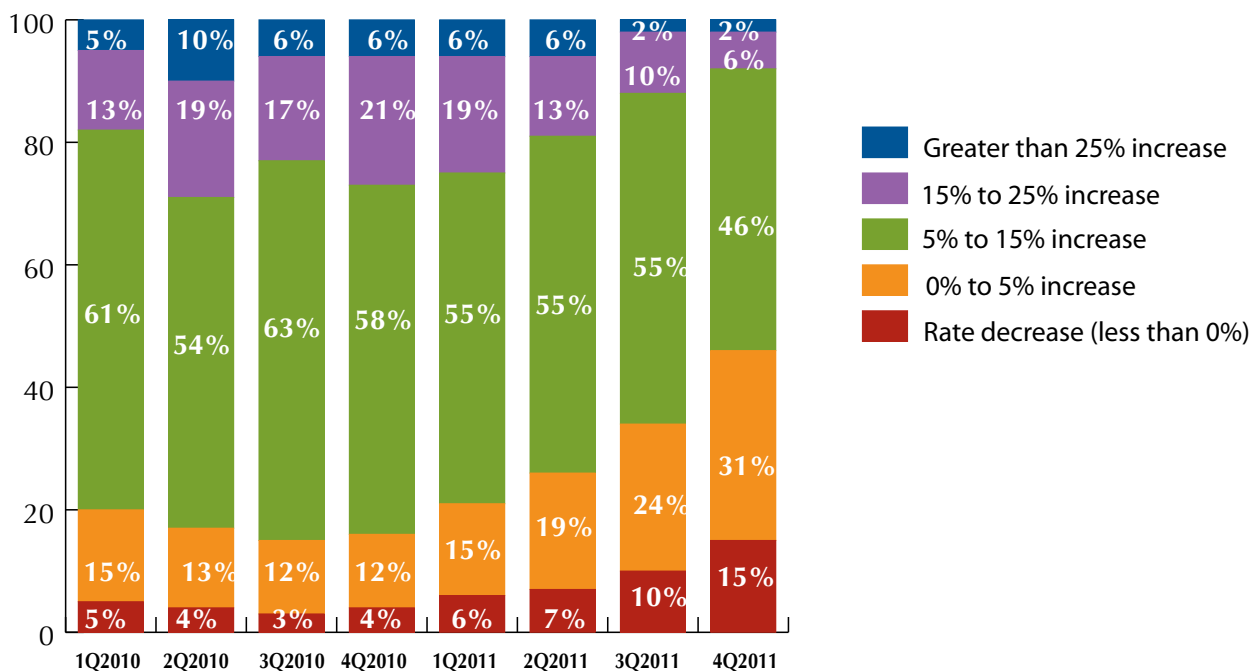
**Figure 3. Distribution of Enrollment by Quoted Rate Increase, Small Group**



<sup>17</sup> It is important to note that a significant portion of the calendar year 2010 premium trend would have been driven by rate increases that were implemented prior to this expanded authority.

The percent of mid-size group members that received a quoted rate increase of 25 percent or more also declined toward the end of 2011 without a change in rating regulation in that sector (the Chapter 288 rules only apply to the small group market). Fifteen percent of mid-size group members even saw a decline in premiums in the fourth quarter of 2011.

**Figure 4. Distribution of Enrollment by Quoted Rate Increase, Mid-Size Group**



There is a lag between the time at which claim trends change and when those changes are reflected in higher or lower premium rate increases. Pricing is typically performed using data from a time period ending several months before the effective date of the rates. This is done to allow for some claim runoff, analysis of the data, and notification to regulators or consumers of the rate changes prior to their taking effect. The decline in premium trend toward the end of 2011 is consistent with the lower observed 2010 claims trend.

Given that claims expenditures continue to rise, albeit more slowly in recent years, reducing actuarial value is a common strategy for curbing premium growth. In this report, actuarial value is defined as the anticipated cost of the plan relative to the anticipated cost of the richest plan offered by any carrier in the study (expressed as a ratio). The richness of benefit packages is driven by member cost sharing and the breadth of covered services.

For this study, the actuarial values of plans purchased by the merged market were calculated and categorized as higher, middle, and lower value according to the range of values for Gold, Silver, and Bronze products available through Commonwealth Choice (Massachusetts' health insurance exchange). Table 2 displays the features and corresponding actuarial values of some of the plans offered by Commonwealth Choice.

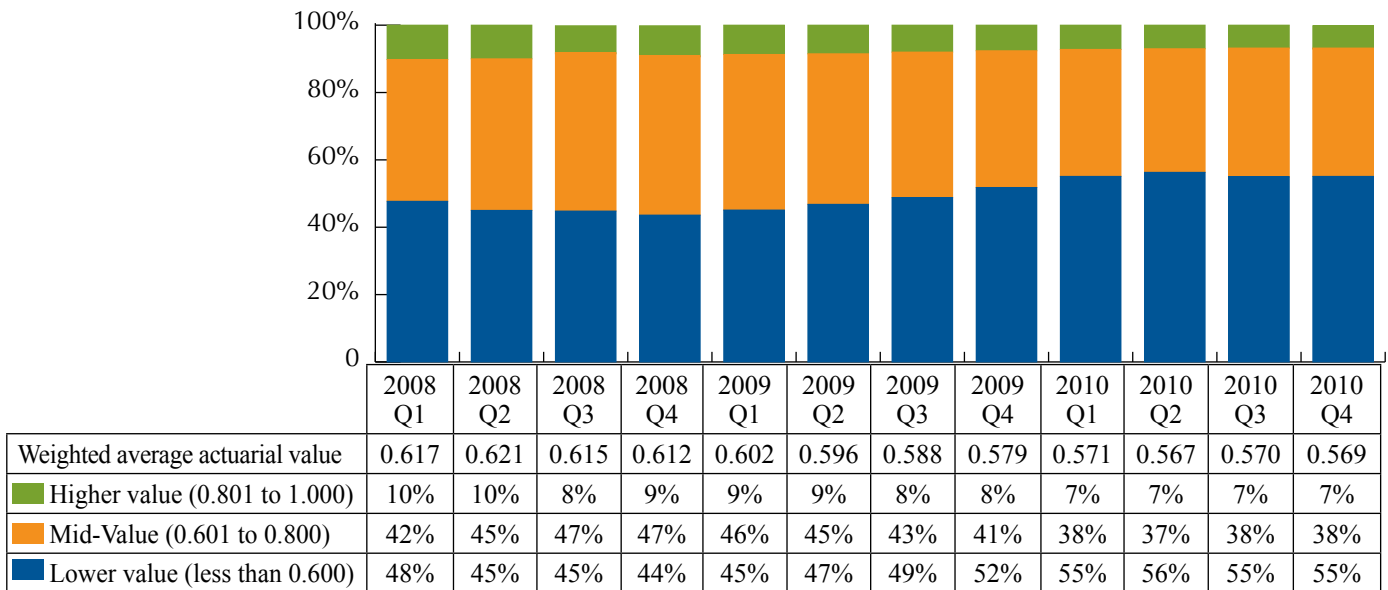
**Table 2. Cost Sharing and Actuarial Value of Commonwealth Choice Plan Offerings, 2010<sup>18</sup>**

	<b>GOLD</b>	<b>SILVER A</b>	<b>SILVER B</b>	<b>SILVER C</b>	<b>BRONZE A</b>	<b>BRONZE B</b>	<b>BRONZE C</b>
<b>Plan Feature</b>	<b>Cost Sharing</b>	<b>Cost Sharing</b>	<b>Cost Sharing</b>	<b>Cost Sharing</b>	<b>Cost Sharing</b>	<b>Cost Sharing</b>	<b>Cost Sharing</b>
Med Deductible	0	0	500	1000	250	2,000	2,000
OOPM	N/A	2,000	2,000	2,000	5,000	5,000	5,000
PCP Office	20	25	20	20	25	30	25
SPC Office	30	25	20	20	40	45	25
ER Copay	75	100	100	100	150	150	100
IP Admit	150	500	N/A	N/A	35%	500	20%
OP Surgery	150	500	N/A	N/A	35%	250	20%
Rx Deductible	N/A	N/A	N/A	N/A	250	250	250
Rx Copays	\$15/\$30/\$50	\$15/50%/50%	\$15/\$35/\$60	\$15/\$30/\$50	\$15/50%/50%	\$10/\$30/\$50	\$15/50%/50%
Actuarial Value	0.800 - 0.850	0.700 - 0.750	.675 - .725	0.625 - 0.675	0.425 - 0.475	0.450 - 0.500	0.400 - 0.450

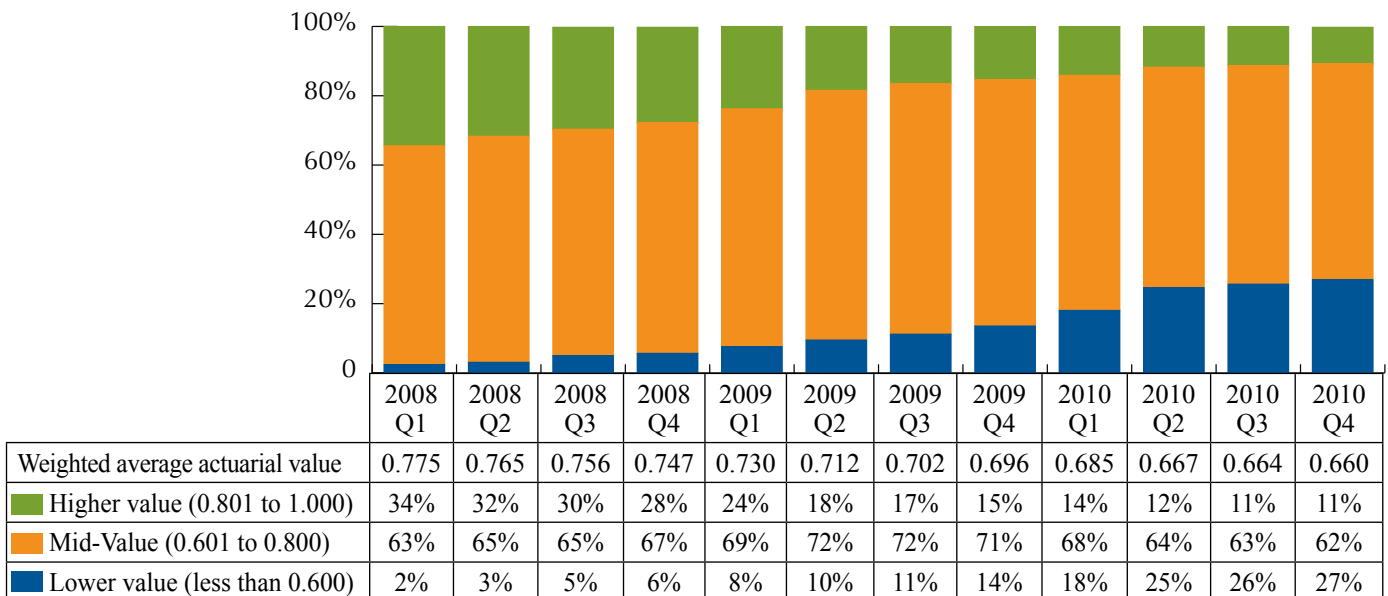
<sup>18</sup> Actual cost sharing may vary slightly among Commonwealth Choice carriers.

The proportion of members in plans with higher, middle, and lower actuarial values was calculated over the 3-year study period. Figures 5 and 6 demonstrate that, over time, more members are in plans with lower actuarial values.

**Figure 5. Percent of Individual Post-Merger Enrollees by Actuarial Value, 2008-2010**



**Figure 6. Percent of Small Group Enrollees by Actuarial Value, 2008-2010**



The plans purchased by individuals between 2008 and 2010 had, on average, less rich benefits than those of small groups. However, the difference narrowed over time as small groups moved toward less rich benefits at a faster rate than individuals. Small groups reduced benefits resulting in actuarial values that were 12.0 percent lower in 2010 than in 2008. The corresponding reduction in actuarial value for individual purchasers was 7.6 percent from 2008 to 2010.

In the fourth quarter of 2010, 27 percent of small group members and 55 percent of individual post-merger members had coverage in the lower value range of actuarial values in the study. For these enrollees, it may become difficult to further curb the premium growth trend by reducing benefits while maintaining Minimum Creditable Coverage (MCC), the benefit package required to satisfy Massachusetts' individual mandate.<sup>19</sup> Moreover, if slowing premium trends are driven in significant part by reduced actuarial value, it suggests that the changes may simply reflect cost-shifting to the members, rather than actual overall cost moderation.

## Historical Medical Loss Ratios and Administrative Expenses

From 2009 to 2010, the medical loss ratio of each insured market sector decreased. The medical loss ratio reflects the percent of premium that is used to pay claims, and is calculated as claims divided by premium.<sup>20</sup> The medical loss ratio calculated across all insured market sectors decreased from 91.1 percent in 2009 to 89.8 percent in 2010.<sup>21</sup>

**Table 3. Premium, Claims, and Loss Ratios in Private Comprehensive Health Insurance Products, 2008-2010**

	2008			2009			2010		
	Premiums (billions)	Claims (billions)	Loss Ratio	Premiums (billions)	Claims (billions)	Loss Ratio	Premiums (billions)	Claims (billions)	Loss Ratio
Individual Post-Merger Products	\$0.2	\$0.3	116.6%	\$0.3	\$0.4	118.6%	\$0.4	\$0.4	112.0%
Small Group	\$2.8	\$2.5	88.7%	\$2.6	\$2.3	88.8%	\$2.6	\$2.2	88.0%
Merged Market Total	\$3.0	\$2.7	90.8%	\$2.9	\$2.7	92.0%	\$2.9	\$2.7	91.0%
Mid-Size Group	\$3.1	\$2.8	89.9%	\$3.2	\$2.8	89.2%	\$3.2	\$2.8	87.9%
Large Group	\$2.3	\$2.1	91.7%	\$2.2	\$2.1	92.7%	\$2.1	\$1.9	91.1%
Total	\$8.4	\$7.6	90.7%	\$8.4	\$7.6	91.1%	\$8.2	\$7.4	89.8%

Source: Oliver Wyman analysis of data from Massachusetts carriers for resident and non-resident insured lives.

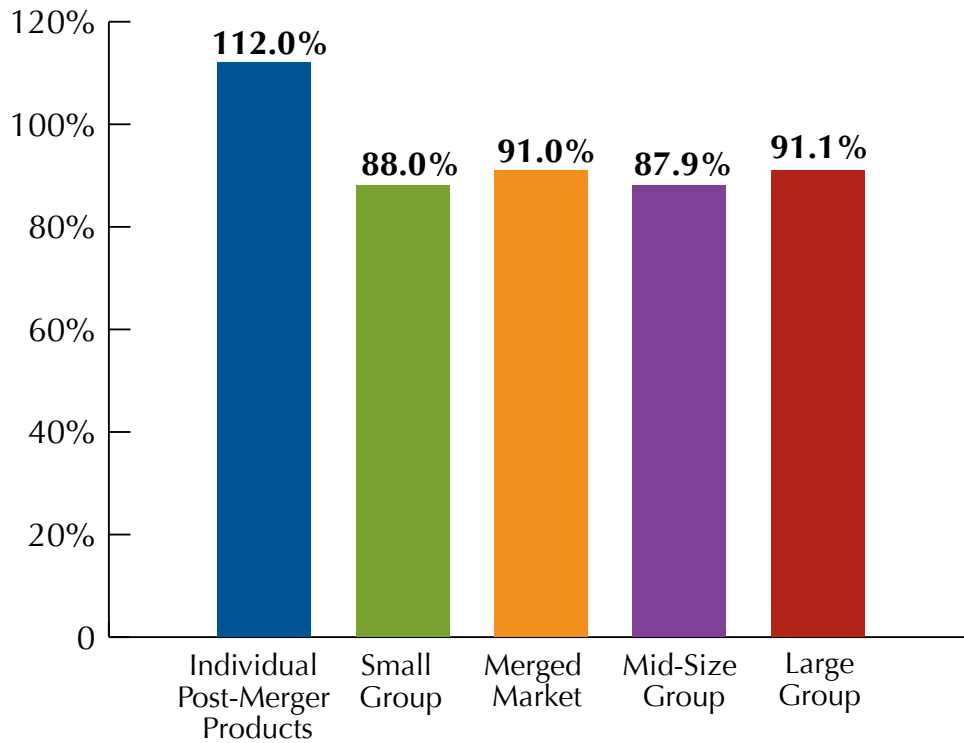
19 See 956 CMR 5.00 MINIMUM CREDITABLE COVERAGE, available at: [https://www.mahealthconnector.org/portal/binary/com.epicentric.contentmanagement.servlet.ContentDeliveryServlet/Health%2520Care%2520Reform/Regulations/documents/MCC%2520Regulation\\_956%2520CMR%25205%252000.pdf](https://www.mahealthconnector.org/portal/binary/com.epicentric.contentmanagement.servlet.ContentDeliveryServlet/Health%2520Care%2520Reform/Regulations/documents/MCC%2520Regulation_956%2520CMR%25205%252000.pdf), accessed 2/9/2012.

20 The medical loss ratio calculated in this reported does not include all of the ACA adjustment requirements defined in 45 CFR Part.158.

21 Chapter 288 of the Acts of 2010 established presumptive disapproval of merged market rates if the administrative expenses increase by more than the New England medical CPI, if a carrier's contribution to surplus exceeds 1.9%, or if the projected medical loss ratio is less than 88% starting October 1, 2010 and 90% starting October 1, 2011 until October 1, 2012.

In 2010 the merged market loss ratio was roughly equal to the large group loss ratio at about 91 percent. The mid-size group sector had the lowest loss ratio among the insured market sectors, with a loss ratio of 87.9 percent.

**Figure 7. Loss Ratios by Insurance Market Sector, 2010**



Source: Oliver Wyman analysis of data from Massachusetts carriers for resident and non-resident insured lives.

Monitoring the proportion of premiums that are not spent on member medical services - also known as retention - is another useful tool to gauge the overall efficiency of a carrier. In Massachusetts, retention remained low for most group sectors, ranging between 12 percent and 9 percent in 2010. Administrative expenses PMPM (the largest component of retention) increased by 1 percent from 2009 to 2010.<sup>22</sup> Table 4 shows that retention PMPM grew significantly on a percentage basis; however, because they represent a small portion of overall costs, large percentage changes from year to year have only a small impact on premiums.

**Table 4. Estimated Average Annual Growth in Retention PMPM by Insurance Market Sector, 2008-2010**

	2008-2009	2009-2010	Average Annual Growth 2008 - 2010
Small Group	1.5 %	11.2%	6.3%
Mid-Size Group	13.1%	16.3%	14.7%
Large Group	-7.8%	24.7%	7.2%

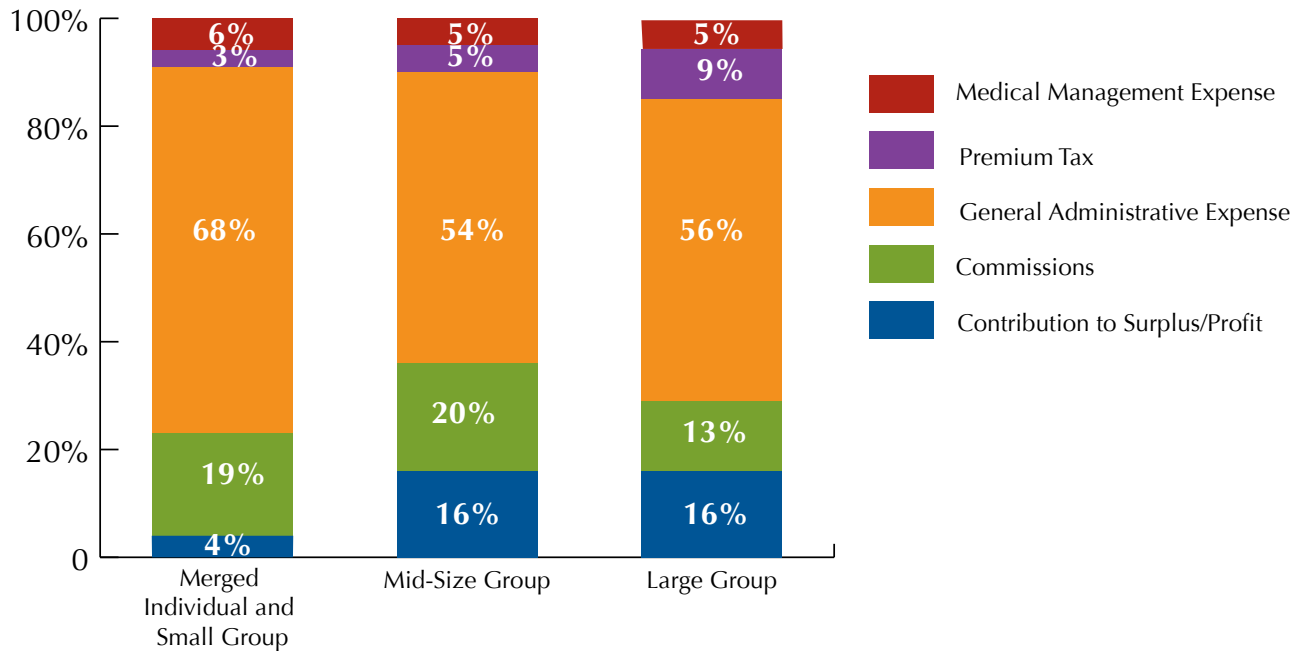
Source: Oliver Wyman analysis of data from Massachusetts carriers for resident and non-resident insured lives.

The significant increase in retention PMPM does not necessarily mean that carriers intended to increase retention by the magnitude that actually occurred. Relatively small percentage deviations in actual claim amounts relative to the projected claim amounts can result in large percentage changes in retention relative to expectations. As stated previously, claims expenditures in 2010 continued to demonstrate a slowing trend, both locally and nationally. To the extent that this slow-down in expenditures was unanticipated, it may have led to larger than planned retention charges.

Carriers' pricing reflected higher general administrative expense charges for the merged market than for mid-size and large groups as a percentage of premiums in April 2011. One possible reason for this could be that expenses that cost a fixed amount per group, such as premium billing, are greater on a per member basis for smaller group sizes since there are fewer members over which to spread the fixed expense.

<sup>22</sup> In 2007, MA administrative expenses were 10.9% of premium, compared to 11.1% in Northeast and 11.6% nationwide (<http://www.mass.gov/ocabr/docs/doi/consumer/maadminexpensereport.pdf>). The percent increase is calculated from unrounded values not shown.

**Figure 8. Decomposition of Average<sup>a</sup> Retention into Components Used in Pricing Private Comprehensive Health Insurance Products, April 2011**



Source: Oliver Wyman analysis of rating data for insurance carriers in Massachusetts.

Notes: Retention is defined as the portion of premium maintained by the carriers to pay for administrative expenses and contribution to surplus or profit. Retention is equal to 1 minus the loss ratio.

<sup>a</sup> The average shown is weighted by membership.

The higher general administrative expenses for the merged market were generally offset by lower contributions to surplus or profit in that market. This lower contribution to surplus could be related to the presumptive disapproval standards that were in place for April 2011 related to merged market rate filings. Merged market rate filings could have been presumptively disapproved if contribution to surplus exceeded 1.9 percent or the projected loss ratio fell below 88 percent.<sup>23</sup>

<sup>23</sup> Section 29 of Chapter 288 of the Acts of 2010, which establishes presumptive disapproval criteria, took effect on October 1, 2010. However, since the regulations implementing the new rate filing requirements were filed with the Secretary of the Commonwealth on March 18, 2011 for promulgation on April 1, 2011, the first effective date for which the requirements apply is July 1, 2011. The 1.9% contribution to surplus criteria is revised to 2.5% for carriers whose Risk Based Capital Ratio falls below 300% for the most recent four consecutive quarters. Section 30 took effect on October 1, 2011 and revises the medical loss ratio for presumptive disapproval from 88% to 90%. Section 31, which takes effect on October 1, 2012 removes the presumptive disapproval criteria.



## 2: Results on Statewide Total Medical Expenses

The analysis of Total Medical Expenses (TME) uses information on claims and non-claims payments to providers filed by carriers in order to track spending on all medical services on a per member per month (PMPM) basis. These data allow us to report on members across an entire carrier's insured population and link members to specific physician provider groups when a member selects a primary care provider. This dual approach provides both within-payer aggregated TME PMPM calculations and within-network physician group TME PMPM calculations. Physician group TME includes the total health care expenditures for managed members across different provider settings.<sup>24</sup>

Findings related to TME are based on carriers' annual filings to DHCFP for calendar years 2009 and 2010. These filings include claims payments and non-claims payments by type of service as well as enrollment and health status adjustment data.<sup>25</sup> Because health plans can only link a member's medical spending to a primary care provider if the member participates in a managed care plan, physician group<sup>26</sup> TME contains exclusively managed care member information. Physician group results cannot be compared across payers for two critical reasons: (1) payers use different health status adjustment tools, and (2) all payers may not group physicians into the same physician group practices. For these reasons, direct comparisons across payers would yield inaccurate information.

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24 Managed members are defined as members who belong to a managed care plan that requires them to select a primary care provider (PCP).

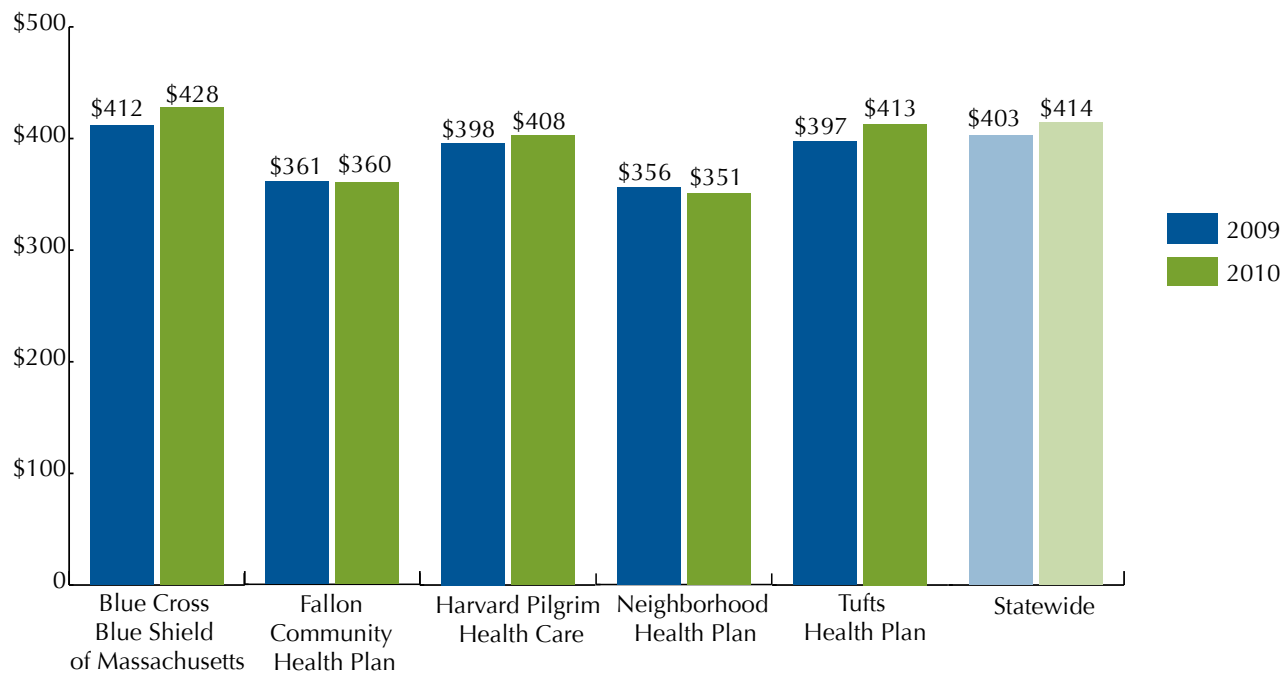
25 Health status adjustment refers to a way health plans account for the health status of their population. Payers use a health status adjustment tool that produces a weighted ratio to apply to expenses as a way of making the dollar amounts directly comparable across different patient populations. See Appendix B – Data and Methodology for more information on health status adjustment.

26 Physician group reporting occurred at both the parent level and the local level. The “parent physician group” refers to the organizing entity which contracted as a single entity for its constituent local practice groups. For this study, only data reported at the parent level was analyzed.

## Growth in Total Medical Expense

Massachusetts statewide unadjusted total medical expenditures in the commercial market were \$414 PMPM in 2010.<sup>27</sup> This represents a 3 percent increase over 2009 medical expenditures of \$403 PMPM. The observed rate of increase was not consistent across payers. TME increased by 4 percent from 2009 to 2010 for both Blue Cross Blue Shield of Massachusetts and Tufts Health Plan. TME for the remaining payers analyzed was relatively stable during that time.

**Figure 9. Unadjusted 2009 and 2010 Commercial TME by Payer (PMPM)**

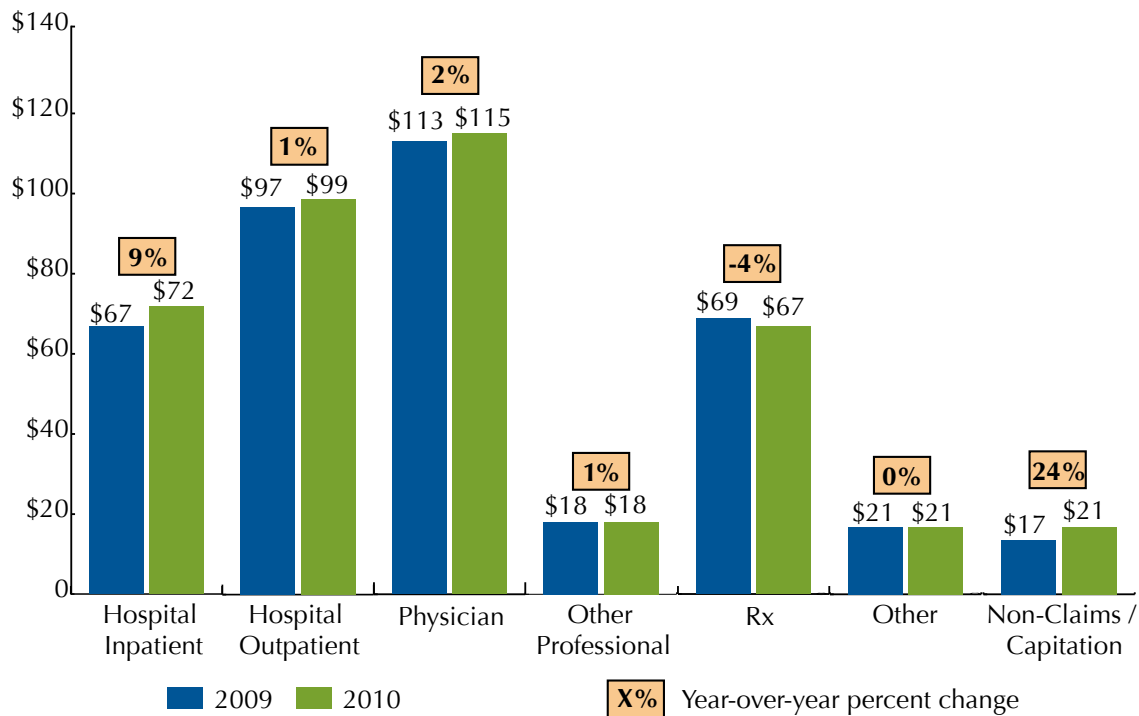


There is significant variation in unadjusted TME across payers, ranging from \$351 PMPM for Neighborhood Health Plan to \$428 PMPM for Blue Cross Blue Shield of Massachusetts in 2010. Among the payers analyzed, the three largest payers (Blue Cross Blue Shield of Massachusetts, Harvard Pilgrim Health Care and Tufts Health Plan) also had the highest TME in both 2009 and 2010.

<sup>27</sup> This figure is unadjusted for member health status.

Hospital services continued to account for 41 percent of total medical expenses from 2009 to 2010. Inpatient services represented a slightly higher portion of hospital expenditures in 2010 than 2009. Expenditures for inpatient services grew substantially, by 9 percent from 2009 to 2010, while spending on prescription drugs experienced a moderate decline of 4 percent.

**Figure 10. Service Categories of Unadjusted 2009 and 2010 Commercial Statewide TME (PMPM and Percent of TME)**

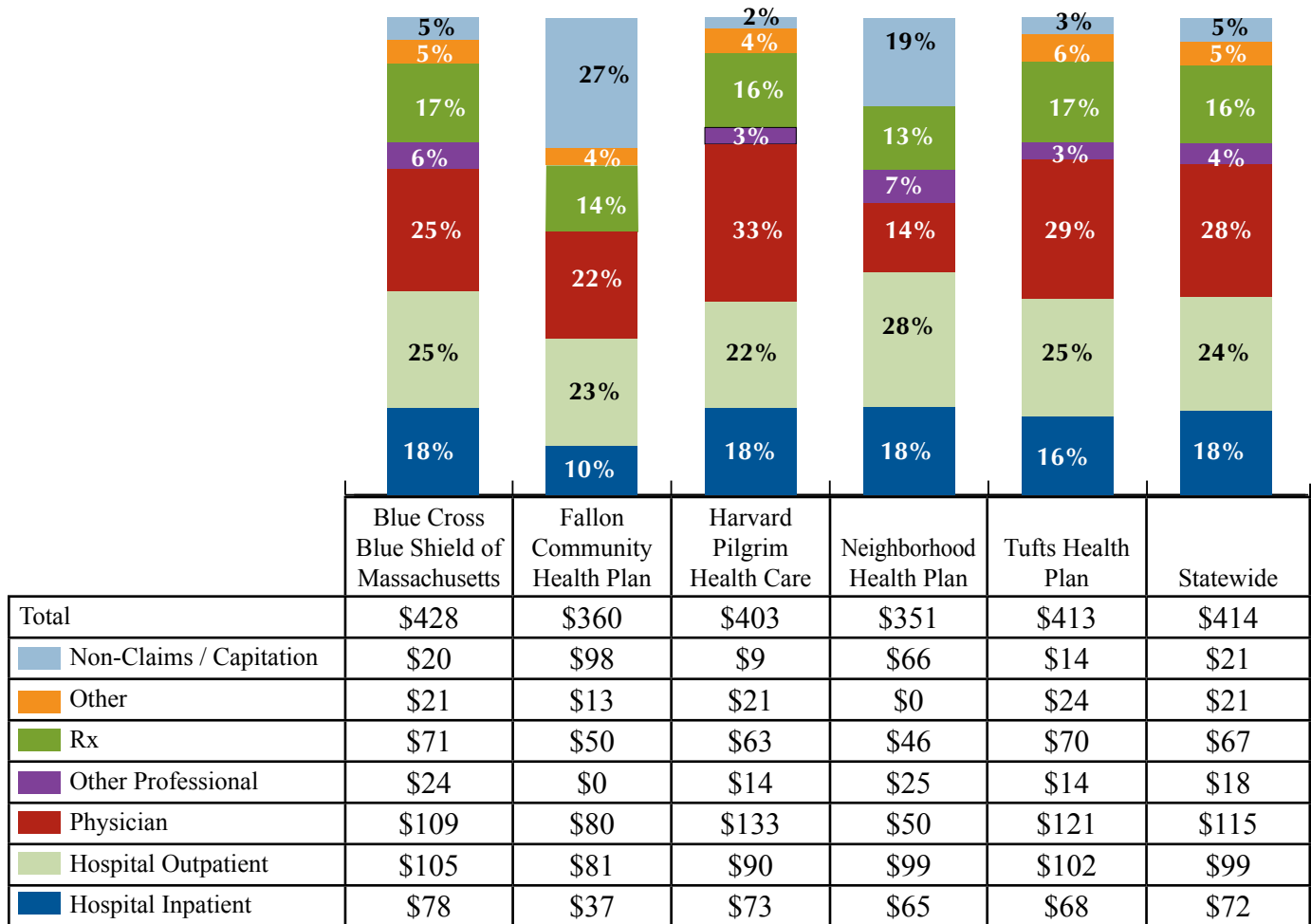


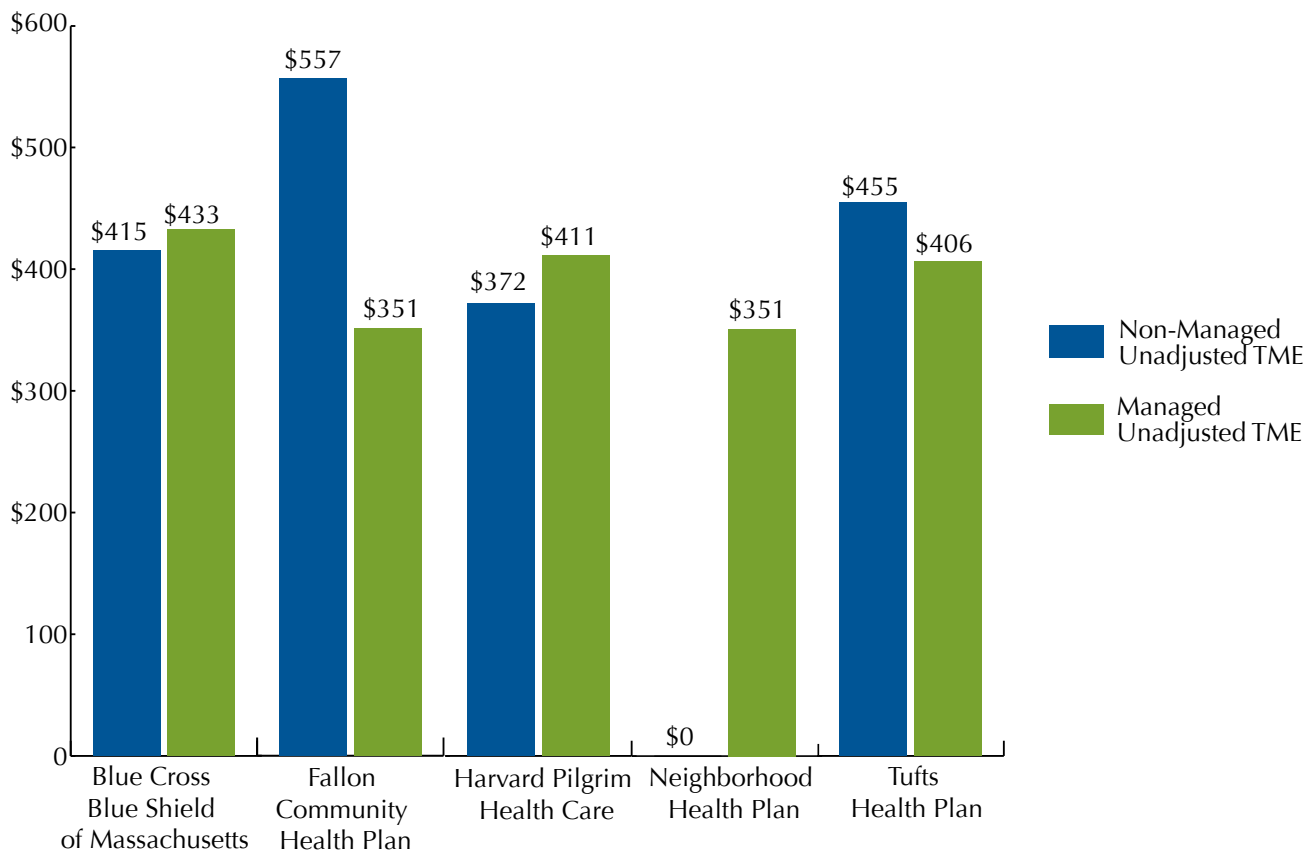
The increase in non-claims payments, including performance incentive payments and capitation risk settlements, appears to be quite dramatic—24 percent from 2009 to 2010. However, non-claims/capitation payments make up only 5 percent of total spending, the result being that the actual PMPM increase was quite small (\$4 PMPM). This finding may suggest that payers are increasing the proportion of provider payments they make through payment methods other than fee-for-service claims, such as global or bundled payments. However, it is important to note that there is variation in how payers report expenses by service category.<sup>28</sup>

<sup>28</sup> A more detailed explanation can be found in Appendix B – Data and Methodology.

The distributions of each payer's unadjusted TME by type of service in Figure 11 illustrate the variation in proportional spending on the various service categories of medical expenditures among payers. For the payers with the three highest TME calculations, spending on physicians accounts for over 25 percent of TME. The breakdown also exhibits a wide variation between the proportions of spending allocated to non-claims/capitation by payer. However, as noted previously, the variation in how payers categorize expenses by service category limits our ability to draw meaningful conclusions from these data.

**Figure 11. Proportion of Unadjusted Commercial 2010 TME by Service Category by Payer**

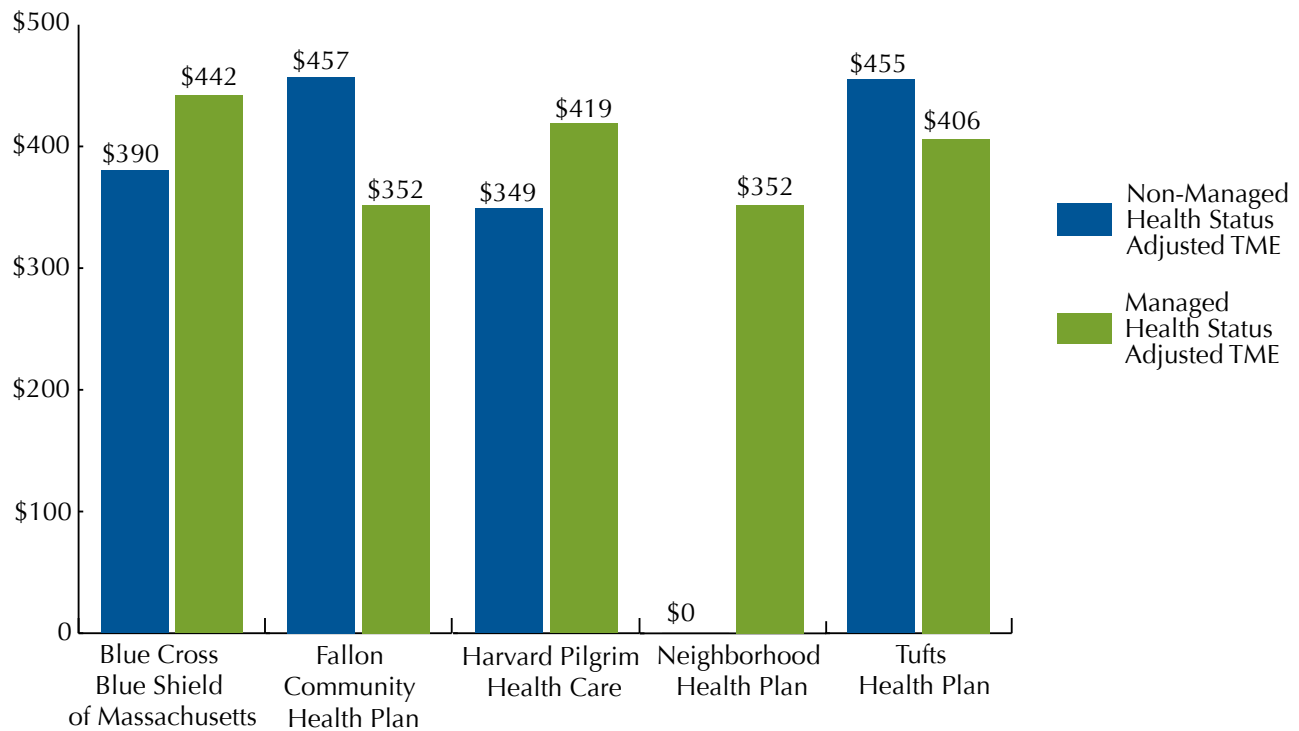


**Figure 12. Managed and Non-Managed Unadjusted Commercial 2010 TME by Payer (PMPM)**

Note: Neighborhood Health Plan only offers managed care products.

In 2009, unadjusted TME was greater for non-managed members than it was for managed members, reflecting in part the less healthy status of the non-managed population, as measured by health status adjustment factors. When adjusted for these factors, the managed population had higher TME than the non-managed population for two of the three reporting payers. However, for both adjusted and unadjusted TME in 2010, managed and non-managed members were not consistently higher or lower. This may reflect in part the imperfect nature of health status adjusters' ability to explain variation in TME, or the limitations of current managed care structures to support primary care providers (PCPs) in efficiently coordinating care for their total patient population.

**Figure 13. Managed and Non-Managed Health Status Adjusted Commercial 2010 TME by Payer (PMPM)**



Notes: Neighborhood Health Plan health status adjusted TME differs slightly from unadjusted due to rounding of the health status scores.

NHP reports as \$352, versus \$351 in other charts, despite 100% managed due to slight rounding error in health status adjustment.

Neighborhood Health Plan only offers managed care products

In 2009, we showed Fallon non-managed as N/A due to only 39,000 member months (with \$533 HSA TME). In 2010, there are 63,000 non-managed member months.

## Variation in Total Medical Expense by Physician Group

As the Special Commission on Provider Price Variation found, variation can be influenced by both justifiable and unjustifiable factors, and drive overall cost growth. Growth and variation in TME by physician group can be due to multiple factors, including both the contracted unit price as well as the extent to which physician groups are efficiently coordinating their patients' utilization of services across various sites of care. The 2010 TME results were calculated from payers' preliminary data submission, adjusted through a network service category completion factor but applied to physician groups. Individual physician group 2010 data may be overstated or understated, depending on outstanding claims or performance-based bonuses. A more detailed explanation can be found in Appendix B – Data and Methodology.

Figure 14 displays the range in physician group TME across the three largest payers from 2009 to 2010. Over this period, the median physician group TME increased for all three payers included in the physician group analysis. The largest increase in median physician group TME was for Blue Cross Blue Shield of Massachusetts (BCBSMA), at 6.9 percent. Tufts Health Plan (THP) and Harvard Pilgrim Health Plan (HHPH) had smaller growth in median physician group TME, 1.0 percent<sup>29</sup> and 1.9 percent respectively.

**Figure 14. Range and Variation in Physician Group Health-Status Adjusted TME PMPM, 2009-2010**



<sup>29</sup> The median reported for Tufts Health Plan in the 2009 baseline report was \$383. The analysis for 2009 was revised to more closely align with the parent physician groups reported in 2010. The revised median includes the following groups that were not included in the baseline report, shown with their 2009 health status adjusted TME in parentheses: NEQCA – Individual Affiliates (\$356), Highland Healthcare Associates (\$385), Mount Auburn Cambridge IPA (MACIPA) (\$393), and Northeast PHO Inc (\$394). In addition, the Steward Network Services, Inc. revised health status adjusted TME for 2009 is \$376. This number is calculated from the 2009 revised Tufts median.

Variation in health-status adjusted TME by physician group was significant across the payers. Physician groups providing care under contracts for Blue Cross Blue Shield of Massachusetts' managed care members consistently had the highest TME and the widest variation in TME compared to the other payers — 45 percent in 2010. The variation in Harvard Pilgrim Health Care's managed members' health status adjusted physician group TME also increased over the study period, from 26 percent in 2009 to 42 percent in 2010. The variation in Tufts Health Plan's physician group health status adjusted TME for managed members was consistently narrower than that of the other payers — 26 percent in 2010 and 27 percent in 2009. Tufts Health Plan physician groups also had the lowest range of TME among the payers.

Although physician group TME cannot be *directly* compared across payers, a relative TME value was calculated for each physician group *within* a payer's network in order to determine whether a physician group was consistently higher- or lower-cost across payers. The relative TME value was calculated as the health status adjusted TME for the physician group for that payer divided by the median health status adjusted TME of all physician groups in the payer's network.<sup>30</sup> If a physician group had a relative TME above 1.0 for each payer that reported data for that group (provided at least two payers reported data for the group), it was classified as a Higher Relative TME group. Similarly, if a physician group a relative TME below 1.0 for each payer that reported data for that group (provided at least two payers reported data for the group), it was classified as a Lower Relative TME group.

In 2010, eight physician groups had higher relative TME, and six physician groups had lower TME. The additional sixteen physician groups analyzed had neither consistently higher nor lower TME across payers for the time period studied.<sup>31</sup>

**Table 5. Higher and Lower Health Status Adjusted Commercial TME Physician Groups Across Payer Networks\*\***

Higher Relative TME	Lower Relative TME
Acton Medical Associates*	Baycare Health Partners, Inc.
Lahey Clinic*	Central Massachusetts Independent Physician Assoc. (CMIPA)
Mount Auburn Cambridge IPA (MACIPA)	Fallon Clinic
Northeast PHO (NEPHO)	Health Alliance with Physicians, Inc.
Partners Community HealthCare, Inc. (PHO)	New England Quality Care Alliance (NEQCA)*
Physicians Of Cape Cod Inc.	Signature Healthcare Brockton Hospital Physician Hospital Organization, Inc.
South Shore Physician Hospital Organization (SSPHO)	
Sturdy Hospital Physicians (Physician Group)	

\* Denotes physician groups at 1.00 for at least one payer.

Highlighting denotes physician groups that were Higher Relative TME in 2009 and 2010, or were Lower Relative TME in 2009 and 2010.

\*\* Physician groups were included in this analysis if they had at least 36,000 member months, the equivalent of 3,000 members, in managed care plans for a given payer over the reporting time period.

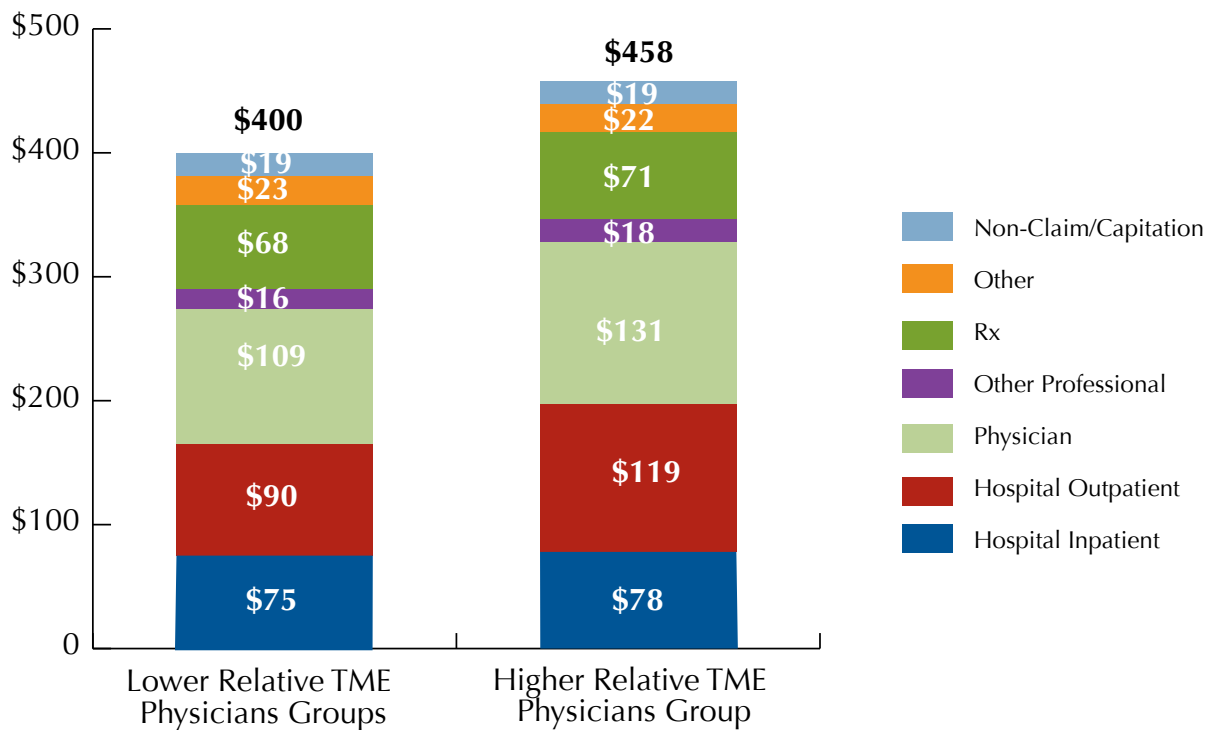
30 For this study, only parent physician groups with at least 36,000 member months were considered to be part of the payer's network.

31 A full list of physician groups can be found in Appendix A, also under the heading "Table 5."



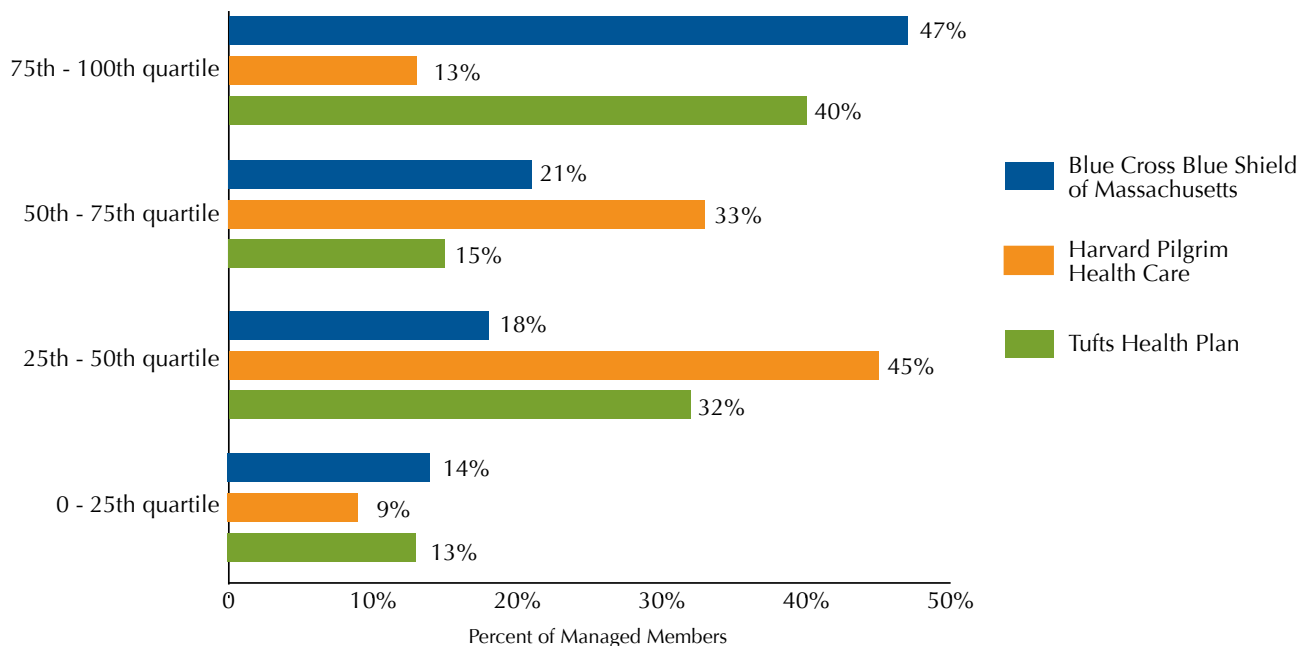
When data from higher relative TME and lower relative TME physician groups is aggregated across payers, general observations about the difference between the two groups emerged. Higher relative TME physician groups had 2010 unadjusted TME (\$458 PMPM) that was 14 percent higher than the unadjusted TME of lower relative TME physician groups (\$400 PMPM). Patients of higher TME physician groups had higher expenditures in every service category compared to those of lower TME physician groups, but most significantly on Hospital Outpatient and Physician services. These categories accounted for the majority of the difference in overall TME between higher and lower relative TME physician groups, 51 percent and 38 percent, respectively (Figure 15).

**Figure 15. Commercial 2010 TME Service Categories for Higher and Lower Relative Commercial Unadjusted TME Physician Groups Across Payer Networks**



The three largest payers experienced the highest unadjusted TME in 2010 of all the payers analyzed. Of these, Blue Cross Blue Shield of Massachusetts and Tufts Health Plan had high percentages of managed members with a PCP in a physician group in the highest TME quartile (47% and 40%, respectively). The high proportion of members enrolled with these payers with PCPs belonging to a high-cost physician group likely contributed to their having the highest unadjusted TME for all payers analyzed in 2010.<sup>32</sup> In comparison, Harvard Pilgrim Health Care had 13 percent of managed members with a PCP in a physician group in the highest quartile, indicating that a factor other than patients' alignment with high-cost physician group was responsible for Harvard Pilgrim Health Care's high TME.

**Figure 16. Distribution of Member Volume by Parent Physician Group Health Status Adjusted Commercial 2010 TME**



<sup>32</sup> The 2009 percent of managed members by physician group quartiles are shown in the Appendix.

## Discussion and Conclusion

The results of the premiums and TME analyses yield two critical findings. First, premiums and claims expenditures continue to grow faster than inflation, though the growth rate has slowed in recent years. Despite the deceleration of premium growth and decreasing trend in medical expenditures, small employers and individuals continue to face higher premium increases, and purchase lower value insurance products.

Second, there was significant variation in TME by physician group. Although the limitation of two years' worth of data makes us unable to pinpoint a clear trend in TME, there is a broad consensus in Massachusetts that consumers and policymakers do not have the tools necessary to determine whether the variation in costs is linked to the underlying value of the services delivered. In the context of the dominant fee-for-service payment methodology, which is structured such that quantity of services rather than quality drives revenue, the variation and growth of healthcare spending found by this analysis reiterate the need for fundamental payment and delivery system reform.

Faced with rising costs, small employers have sought to mitigate premium increases in recent years by "buying down" to lower value benefit packages. Our analysis showed that small employers bought down to lower benefits at a rate faster than mid-size and large groups, as well as individuals who were already purchasing less rich benefits than small groups. Roughly 25 percent of small groups and 55 percent of individuals purchase benefit plans toward the lower actuarial values in the study. However, this strategy may not be viable for much longer, as employers in Massachusetts must offer comprehensive benefit packages meeting minimum benefit and maximum cost sharing standards called Minimum Creditable Coverage (MCC), thus creating a floor on the level of benefits for most health insurance products.<sup>33</sup> These individuals and small employers may have difficulty buying down in the coming years if they are already at the minimum level of coverage that satisfies MCC requirements.

Additionally, Massachusetts has a minimum loss ratio in effect for individuals and small employers of 90 percent, as compared to the federal minimum loss ratio of 80 percent in these markets. Since roughly 90 percent of premium is used to make claims and non-claims payments to providers, any further effort to moderate premium trends will likely need to focus on medical expenditures. It is unclear whether the slowdown in growth of medical claims in recent years, most likely related to the recent recession, will be sustained as the economy improves. Lower premiums may be achieved in other ways, such as purchasing a product with a more limited or tiered network. Given that buy-down may just reflect cost-shifting, it is clear that new strategies for addressing underlying cost drivers are required. These cost drivers include both unit cost (as discussed by the special commission) and inefficient utilization patterns (high volume). Interventions to address both of these issues are called for.

The use of TME as a standardized gauge of global medical spending on a per member per month basis is a fairly recent development, first promoted in Chapter 288 of the Acts of 2010. This methodology is particularly valuable because it can aggregate medical costs across multiple sites of care, whereas traditionally information on health care costs has only been available for limited service categories. A common criticism of site-specific data is that it reflects and reinforces barriers to coordination between different types of providers caring for a patient, and therefore blocks efforts to improve the quality and efficiency of healthcare. Relying on TME to measure system-wide expenditures has the potential to broaden the perspective of consumers, payers, and policymakers in reforming payment arrangements so that they connect different types of providers and enhance patients' access to the full spectrum of health services.

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<sup>33</sup> Massachusetts General Laws Part I, Title XVI, Chapter 111M, Section 2, available at: <http://www.malegislature.gov/Laws/GeneralLaws/PartI/TitleXVI/Chapter111M/Section2>



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